

11/19/2003  
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SHEET 9  
SHEET 10

## GENERAL STRUCTURAL NOTES (CONT'D.)

30. In addition to all other requirements of Section 512 of the Standard specifications, splices for steel HP 14 x 89 piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear, and bending forces. One approved method of achieving this requirement is full penetration butt-welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed, subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear, and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.
31. The Contractor shall start driving piles from the center of the foundation and work outward toward the perimeter.
32. Plan dimensions and details relative to the existing structure have been taken from existing plans, and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
33. The Concrete Superstructure quantity has been adjusted for the F-Shape parapet.
34. The Contractor shall construct the parapets according to the F-shape parapet detailed in the Special Provision in lieu of the New Jersey parapet detailed in the Contract Plans.
35. There are Existing Aerial Lines that Pass Through the Footprints of Proposed Piers 12 and 13. These Lines Must be Relocated Before Any Work May be Performed at these Piers. To be relocated by others.
36. The Contractor shall not damage the existing covered pedestrian walkway located between Piers 32 and 33 for access to the Ameren/UE Plant. Any damage to the covering or walkway shall be replaced at the Contractor's expense.
37. At the location of the South Footing of proposed Pier 13, there are buried electrical lines and a buried sewer line. These utilities may be abandoned; however, the Contractor must coordinate with the appropriate utilities to confirm their abandonment.
38. Prior to pouring the new concrete for the deck patches in Spans 27-29, all loose rust, loose mill scale, and all other loose potentially, detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with the concrete.  
The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.  
All existing construction accessories welded to the top flange over the pier(s) between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that can not be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of the work will be paid for according to Article 109.04.
39. Existing Structural Steel that will be in contact with New Structural Steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
40. Prior to the demolition of the existing bridge, a one foot thick concrete mat of crushed stone will be placed on the east side of the structure from the West Abutment to the Mississippi River outer harbor line. See Sheets 361-364 of 425 and 367-376 of 425 for layout.

DESIGNED	G. SOVA
CHECKED	A. ZWEIBEL
DRAWN	D. JUDGE
CHECKED	G. SOVA

## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

### TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL QTY.
COMPOSITE GRID DECK SYSTEM	SQ FT	43282
STEEL PARAPET	FOOT	3130
LIMESTONE FACING REPAIR	SQ FT	162
FURNISHED EXCAVATION	CU YD	835
POROUS GRANULAR EMBANKMENT	CU YD	155
STONE RIPRAP, CLASS A4	SQ YD	420
STONE DUMPED RIPRAP, CLASS A7	SQ YD	732
FILTER FABRIC FOR USE WITH RIPRAP	SQ YD	526
GABION	CU YD	232
PROTECTIVE COAT	SQ YD	2422
CONCRETE REMOVAL	CU YD	76
STRUCTURE EXCAVATION	CU YD	655
COFFERDAM EXCAVATION	CU YD	498
COFFERDAM (LOCATION - I)	EACH	1
FLOOR DRAINS	EACH	68
PREFORMED JOINT SEAL 1 3/4"	FOOT	138
NEOPRENE EXPANSION JOINT 2"	FOOT	88
NEOPRENE EXPANSION JOINT 4"	FOOT	211
CONCRETE STRUCTURES	CU YD	4181
CONCRETE SUPERSTRUCTURE	CU YD	5860
BRIDGE DECK GROOVING	SQ YD	16645
SEAL COAT CONCRETE	CU YD	165
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	88
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	30
FORMED CONCRETE REPAIR (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	160
FORMED CONCRETE REPAIR (DEPTH GREATER THAN 5")	SQ FT	65
FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
STUD SHEAR CONNECTORS	EACH	66200
STRUCTURAL STEEL REPAIR	POUND	229408
REINFORCEMENT BARS, EPOXY COATED	POUND	2059745
STEEL RAILING (SPECIAL)	FOOT	64
FURNISHING STEEL PILES HP14X89	FOOT	49489
DRIVING STEEL PILES	FOOT	49489
TEST PILE STEEL HP14X89	EACH	8
METAL SHOES	EACH	686
NAME PLATES	EACH	2
BRIDGE SEAT SEALER	SQ FT	7279
IMPACT ATTENUATOR (FULLY REDIRECTIVE, NARROW) TL 3	EACH	4
MECHANICAL SPLICERS	EACH	4817
FIELD MEASUREMENTS	L SUM	1
MEDIAN BARRIER SEPARATOR	FOOT	856
BICYCLE RAILING (SPECIAL)	FOOT	3142
FLOATING BEARINGS, FIXED, 100K	EACH	20

41. The high voltage power lines between Piers 23 and 24 and between Piers 32 and 33 can not be shut down at anytime during the duration of construction.
42. All piles for the project shall be vibrated in place. After vibration of the piles and before acceptance, the piles shall be driven to final bearing.
43. All construction joints shall be bonded.
44. For Pay Items and Details associated with removal of Existing Structures, see Sheets 357-425 of 425.

FAU ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9105	119BR	MADISON	425	62
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT-	76561	

SHEET NO. 10  
281 SHEETS  
JULY 31, 2003

### TOTAL BILL OF MATERIAL (CONT'D)

ITEM	UNIT	TOTAL QTY.
FLOATING BEARINGS, FIXED, 150K	EACH	7
FLOATING BEARINGS, FIXED, 200K	EACH	14
FLOATING BEARINGS, FIXED, 250K	EACH	12
FLOATING BEARINGS, FIXED, 300K	EACH	6
FLOATING BEARINGS, FIXED, 350K	EACH	6
FLOATING BEARINGS, FIXED, 400K	EACH	6
FLOATING BEARINGS, FIXED, 600K	EACH	6
FLOATING BEARINGS, GUIDED EXPANSION, 100K	EACH	6
FLOATING BEARINGS, GUIDED EXPANSION, 150K	EACH	6
FLOATING BEARINGS, GUIDED EXPANSION, 200K	EACH	6
FLOATING BEARINGS, GUIDED EXPANSION, 250K	EACH	12
FLOATING BEARINGS, GUIDED EXPANSION, 300K	EACH	12
FLOATING BEARINGS, GUIDED EXPANSION, 350K	EACH	6
FLOATING BEARINGS, GUIDED EXPANSION, 400K	EACH	12
FLOATING BEARINGS, GUIDED EXPANSION, 700K	EACH	12
PERMANENT STEEL SHEET PILING	SQ FT	370
ABUTMENT DRAINS	EACH	5
DRAINAGE SCUPPERS DS-II	EACH	123
GEOTECHNICAL FABRIC	SQ YD	36548
MODULAR EXPANSION JOINT 6"	FOOT	248
MODULAR EXPANSION JOINT 12"	FOOT	24
PARAPET RAILING	FOOT	11472
PROTECTIVE SHIELD	SQ YD	33746
RAILROAD PROTECTIVE LIABILITY INSURANCE	LUMP SUM	1
RIVET REMOVAL AND REPLACEMENT	EACH	7453
DRAINAGE SYSTEM	LUMP SUM	1
THREADED ROD REPLACEMENT	EACH	180

## GENERAL STRUCTURAL NOTES II AND TOTAL BILL OF MATERIAL

McKINLEY BRIDGE OVER MISSISSIPPI RIVER  
FAU ROUTE 9105 (IL) FAU ROUTE 5408 (MO) SEC. 119BR  
MADISON COUNTY  
STATION 100+00  
STRUCTURE NO. 060-6002

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